REMARKS

Claims 1-10, and 12-29 remain in this application. Claims 1, 24 and 29 have been amended. The Applicant submits that each of claims 1-10 and 12-29 is in condition for allowance.

Oath/Declaration

In response to the objection raised in respect of the oath/declaration, a copy of the original declaration as signed by the inventors is enclosed. Withdrawal of this objection is requested.

35 U.S.C. § 101

Withdrawal of the previous objection under this paragraph by the Examiner is respectfully acknowledged.

35 U.S.C. § 112

Withdrawal of the previous objection under this paragraph by the Examiner is respectfully acknowledged.

35 U.S.C. § 103 rejection

In paragraph 2 of the office action, the Examiner has rejected the claims as being unpatentable over **Dembo** (U.S. Patent No. 5,148,365) in combination with **Moore et al.** (U.S. Patent No. 5,446,885), **Tull, Jr. et al.** (U.S. Patent No. 6,062,056), **Ohata et al.** (U.S. Patent No. 5,864,857), and prior art **RiskWatch V3.1.2** system.

With reference to the Examiner's response in paragraph 2 of the office action, it appears that the Examiner has failed to appreciate, as would be appreciated by persons skilled in the art, that in prior art systems, knowledge of the exact nature of the final target aggregation structure (e.g. a portfolio of interest) was built into the step-by-step processing of the individual instruments that constituted that aggregation structure. Put another way, the target aggregation structure was expected to be known before performing these calculations, as it was deemed essential in the processing of simulation-based risk management reports.

In rejecting the claims of the present application on the basis of obviousness, it would appear that the Examiner is alleging that instrument risk values generated by the prior art RiskWatch V.3.1.2 system can simply be stored in a multi-dimensional database such as that disclosed in **Ohata** to arrive at the claimed invention. However, the Examiner's position, erroneously, assumes that the instrument risk values generated by the prior art system are independent of a known target aggregation structure.

The necessity to re-calculate risk metrics for different target aggregation structures, which in turn required re-calculation of individual risk values, was a well-known problem with such prior art systems. Accordingly, the instrument risk values generated by prior art systems such as RiskWatch V.3.1.2 could not simply be stored for later use with a different target aggregation structure, as the instrument risk values themselves required a specific aggregation structure to be known before the risk values were generated. It follows that the solution suggested by the Examiner as obvious would be insufficient to solve the problems addressed by the embodiments of the Applicants' invention.

More generally, in prior art systems, financial instrument simulation over scenario and time, position scaling, and aggregation were integrated, interdependent functions performed when generating risk management reports. In particular, it was necessary to know the contents of a specific, target aggregation structure

(e.g. portfolio, basket) prior to the start of risk calculations (see e.g., U.S. Patent No. 6,078,904, col. 9 lines 61-67 and claims 2-8, 18-20; U.S. Patent No. 5,148,365, col. 8 lines 12-59 and claim 8; U.S. Patent No. 6,092,056, col. 6 lines 6-32 and abstract).

For greater clarity, claim 1 has been amended to explicitly specify that the step of producing a desired risk metric for a particular portfolio [step (v)] is performed separately, after performance of the processing steps related to instrument simulation [steps (i) – (iv)] has been completed. Similar amendments have been made to independent claims 24 and 29. Basis for this amendment can be found in the description of FIG. 5 and FIG. 9 in the Applicant's specification, which teaches that portfolio selection, aggregation, and position scaling is to be performed *after* instrument simulation.

The Applicants' disclosure teaches that the processing and simulation of individual financial instruments is separate from the processing and calculations involved in treating those instruments as participants in later-defined portfolios and aggregation hierarchies. For example, it is not necessary to know the number, holding value, composition, netting relationship, collateralization, or, indeed, any information related to the final target aggregation hierarchies prior to processing the individual financial instruments.

In the past, it was widely accepted that the risk management of different portfolios could only be performed by analyzing portfolios in their entirety, because the interactions between instruments in any given portfolio were perceived to be too complex. The Applicants respectfully submit that it would have not have been obvious for a person skilled in the art to arrive at the invention by merely storing instrument risk values generated by prior art systems, as those instrument risk values were dependent on the knowledge of a specific target aggregation structure. The inventors realized that by addressing problems associated with generic modeling of financial instruments, time evolution of such

instruments, and collateralization in respect of a portfolio not known at the time instrument risk values are generated, it was possible to perform aggregation as a separate step from instrument simulation.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be some reasonable expectation of success. Finally, the prior art references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the Applicant's disclosure.

The cited references do not teach a system where the aggregation of financial instruments is performed only after the simulation of generic financial instruments is completed. As noted above, prior art risk management systems, including RiskWatch V 3.1.2, required a target aggregation structure (e.g. portfolio of interest) to be known in the generation of instrument risk values. Since the generated risk values of prior art systems were directly dependent on a specific target aggregation structure, they could not simply be stored for re-use. It is respectfully submitted that such prior art systems specifically teach away from the Applicants' claimed invention.

For the above reasons, and in view of previously presented remarks, the Applicants submit that the claims of record are patentable over the cited art, and withdrawal of the Examiner's rejection is requested.

Respectfully submitted,

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